



**U.S. Department of
Transportation**

Office of the Secretary
of Transportation

GENERAL COUNSEL

400 Seventh St., S.W.
Washington, D.C. 20590

DOCKET FILE COPY ORIGINAL

August 2, 1999

Ms. Magalie R. Salas
Secretary, Federal Communications Commission
The Portals
445 12th Street, S.W.
Washington, D.C. 20554

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AUG 2 1999

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Re: Revised Competitive Bidding Authority
WT Dkt. 99-87, RM-9332; FCC 99-52

Dear Ms. Salas:

Enclosed herewith are the original and nine (9) copies of the letter containing the comments of the U.S. Department of Transportation in the above-referenced proceeding. I have also included a computer diskette containing this document (in WordPerfect 5.x for Windows). Finally, there is as well an additional copy that I ask be date-stamped and returned to the messenger bringing these materials.

Respectfully submitted,

Paul Samuel Smith

Senior Trial Attorney
(202) 366-9285

Enclosures

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Magalie Roman Salas
Secretary, Federal Communications Commission
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Washington, D.C. 20554

Re: Revised Competitive Bidding Authority
WT Dkt. No. 99-87; RM-9332; FCC 99-52

Dear Ms. Salas:

In this proceeding the Federal Communications Commission ("FCC" or "Commission") has sought comment on issues related to its implementation of the Balanced Budget Act of 1997, Pub. Law. No. 105-33, 111 Stat. 251 (1997) ("Act"); Notice of Proposed Rulemaking, 64 Fed. Reg. 23571 (May 3, 1999) ("NPRM"). The Act in pertinent part revised the FCC's authority to auction the use of the electromagnetic spectrum, and - - subject to certain exceptions - - specifically directed the Commission to use competitive bidding processes to govern the award of licenses when mutually exclusive applications are filed. 47 U.S.C. § 309(j)(1). This directive arguably applies, *inter alia*, to uses of the spectrum by public authorities for public purposes, which often employ Intelligent Transportation System ("ITS") technologies. Owing to its concern for these uses and to its statutory role in the advancement of ITS services, the United States Department of Transportation ("DOT" or "Department") submits that the public interest in continued use and expansion of these services counsels against subjecting such uses of the spectrum to the auction process.

Background

Congress has charged the Department with assisting in the development and implementation of ITS technologies in order to improve the public safety, enhance traffic management, increase efficiency, and reduce pollution arising from motor vehicles. See generally Pub. Law No. 102-240, 105 Stat. 1914 (1991), and especially 23 U.S.C. § 307 note. Most recently, the Transportation Equity Act

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for the 21st Century reaffirmed this responsibility. Pub. Law No. 105-178, 112 Stat. 107 (1998) and especially 23 U.S.C. § 502 note. DOT has participated in a number of FCC proceedings that have had the potential to affect our ITS mission. The most relevant of these for present purposes is RM 9096, which concerns the proposed assignment of spectrum for a major component of the ITS program, dedicated short range communications ("DSRC"). DOT Comments filed July 28, 1997; September 14, 1998; October 13, 1998.¹ ITS services in the 902-928 MHz band are DSRC technologies; adoption of the proposal in RM 9096 would allocate another band (5.850-5.925 GHz) for these technologies. Many would be used by public authorities for public purposes.

Four so-called non-multilateration ITS services in the 902-928 MHz band serve important safety and other public purposes: electronic toll collection ("ETC"), electronic inspection of commercial vehicles, electronic border clearance, and electronic traffic management. These are outlined below. All involve the transmission of information between vehicle transponders and roadside readers at low power over very short distances (less than 200 feet). None should be exposed to the auction process.

The first and most pervasive public use of DSRC in the 902-928 MHz band is electronic toll collection. There are some fifty-five public or publicly-chartered toll agencies in the U.S.; approximately one-half now use ETC. This service reduces congestion and improves air quality, and thus public safety and health, by effectively increasing the capacity of existing facilities and smoothing the flow of traffic. The obvious efficiency gains for both public agencies and private drivers have proven so attractive that over four million transponders are now in use for this purpose, and there is increasing compatibility (interoperability) among the systems employed. DOT anticipates continued expansion of ETC to toll facilities throughout the nation.²

The second public DSRC application within this band is the electronic inspection of commercial vehicles. These vehicles, mostly large trucks, ordinarily are required in the interests of public safety to stop at designated locations for weighing, inspection, examination of driver logs, and the like. However, such locations are sometimes closed, and trucks sometimes need not stop because a given location is already overwhelmed by the sheer numbers of vehicles already waiting processing. DSRC increases the public safety, for it allows trucks equipped with transponders to be checked without regard to the time of day or

¹/ These pleadings more fully explain the elements of the National ITS Program, and we respectfully refer the Commission to these documents for additional details.

²/ For example, in the two years since DOT's first comments in RM 9096, the number of ETC transponders in use has doubled.

the status of weight/inspection stations.³ This ITS service, again, substantially improves as well the efficiency of the movement of goods on the nation's highways, which accounts for eighty percent of all freight transported in the U.S. Almost half of the states now employ this technology, as do more than 100,000 trucks. The Department expects a vigorous growth in this ITS service as well.

Third, pursuant to the North American Free Trade Agreement ("NAFTA"), the U.S., Mexico, and Canada have agreed to expand the benefits of ITS technologies to some of the regulatory requirements at border crossings. At six border points between these countries operational testing by the Immigration and Naturalization Service and the U.S. Customs Service is now underway using the 902-928 MHz band. Successful completion of this testing would likely lead to adoption of DSRC technologies at many more crossing points. The three nations have recently entered into a commitment to create DSRC standards; their memorandum specifically acknowledges that the 902-928 MHz band has already been approved for use. Exhibit 1 hereto. Forcing public users to engage in competitive bidding could only hinder such cooperative efforts.

Finally, local transportation agencies obtain data from the millions of transponders now in use for public safety purposes, particularly traffic management. The likely expansion of the use of this technology for ETC and other purposes will have a synergistic effect on the ability of local entities to monitor the movement of ever larger numbers of vehicles and to use this information to enhance safety (and efficiency) for all travelers.

The Department's Position

The Commission noted that the Act both specified particular bases to exempt licenses from competitive bidding and preserved its obligation to avoid auctions for classes of licenses when doing so is in the public interest. 64 Fed. Reg. at 23574-75. The public uses of DSRC applications noted above satisfy both grounds and so should not be subject to auction.

The Act expressly exempts from auction requirements "public safety radio services ... used by State and local governments and non-government entities ... to protect the safety of life, health, or property and ... not made commercially available to the public." 47 U.S.C. § 309(j)(2). Each of the ITS services outlined above, whether in the 902-928 MHz band or, in the future, elsewhere, satisfy these criteria. They function on behalf of public or public-chartered entities to

³/ By this means are checked indicia of vehicle registration, fuel tax payment, insurance coverage, applicable permits, and safety matters such as out-of-service orders.

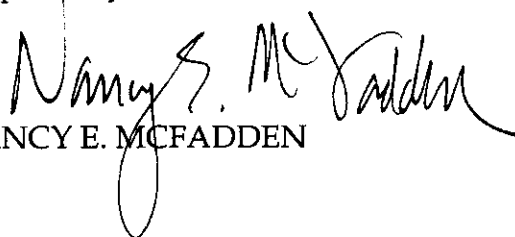
advance safety and other public purposes. They are not "commercially available" because as discussed here they perform public sector functions for public entities that have no commercial mission. That they also offer the added incentive of increased efficiency for public and private sectors alike is no disqualification. Rather, to the extent this feature attracts additional users there are enhanced public benefits in safety and health.

The Act also leaves undisturbed the Commission's obligation to avoid mutual exclusivity in applications (and hence competitive bidding) when to do so is "in the public interest." 47 U.S.C. § 309(j)(6)(E). The above and similar uses of the spectrum advance the public safety and health in the manner noted. Enhancing the ability of public traffic, toll, and border authorities to meet these goals is indisputably in the public interest. Subjecting these users and uses to the auction process would require that public resources compete with those of the private sector, which could only diminish or disrupt the public benefits they garner today and in the future.⁴

Conclusion

The Department urges the Commission to recognize the basic public purposes in the ITS DSRC applications outlined herein. They not only meet applicable statutory criteria for avoiding the auction process, but the ability of affected government entities to meet their responsibilities depends in ever-increasing measure upon the continued availability of spectrum without the need to engage in competitive bidding. Subjecting these public uses to the auction process could only jeopardize rather than serve the public interest.

Respectfully submitted,


NANCY E. MCFADDEN

⁴/ The limited contours of the current public use of DSRC technology (very low power over very short distances) also raise questions about the attractiveness and practicality of auctions in this context.

EXHIBIT 1

**GUIDING PRINCIPLES FOR
DEDICATED SHORT RANGE COMMUNICATION (DSRC)**

**UNDER A MEMORANDUM OF UNDERSTANDING
ON SCIENTIFIC AND TECHNOLOGICAL COOPERATION
IN THE FIELD OF TRANSPORTATION**

BETWEEN

THE DEPARTMENT OF TRANSPORTATION OF THE UNITED STATES OF AMERICA

AND

THE DEPARTMENT OF TRANSPORT OF CANADA

AND

**THE SECRETARIAT OF COMMUNICATIONS AND TRANSPORT
OF THE UNITED MEXICAN STATES**

The Department of Transportation of the United States of America, The Department of Transport of Canada, and the Secretariat of Communications and Transport of the United Mexican States, hereinafter referred to as the "participants", signed a Memorandum of Understanding (MOU) on March 30, 1995 on scientific and technological cooperation in the field of transportation. The participants created the Committee on Cooperation in Transportation Science and Technology (Working Group #4 of the NAFTA Transportation Consultative Group, TCG) to carry out cooperative activities. In accordance with the MOU, the Working Group wishes to establish **guiding principles** for the standardization of dedicated short range communication (DSRC) in North America, and establish a task force to help implement them.

DSRC uses radio frequency systems to facilitate vehicle movement in all modes of land transportation. This technology and the facilitated movement enable increased efficiency for motorists, carriers, and public sector agencies. The main hardware components of the DSRC system currently consist of a vehicle-mounted device communicating with a roadside device via radio frequency. The vehicle-mounted device stores information and provides the exchange of that information with roadside and other on-vehicle equipment.

The objective is to create a set of DSRC standards that govern the wireless communication between the roadside and vehicle devices. This will permit interoperability between the equipment of different manufacturers, and between applications using the equipment from the same manufacturers. Interoperability does not now exist, except for border crossing operational tests as specified in this document, and between several applications and highways in Canada and in the United States.

Field Operational Tests are currently being conducted at six border crossings between the United States, Canada and Mexico. All three countries have adopted temporary solutions for interoperability by installing DSRC devices that meet the American Society for Testing Materials (ASTM) draft standard number six. In using this draft standard, DSRC devices are also supporting other vehicle to roadside applications.

At the present time, the 902-928 MHz radio frequency for DSRC is approved for use in transportation systems by the United States, Canada, and Mexico, and is being addressed through the standards development activity.

Although 902-928 MHz frequency is approved for use in the three countries, a petition has been made in the United States and Canada for allocating a frequency range of 5.850-5.925 GHz, range that will be dedicated to transportation systems. The current frequency range is not dedicated to transportation systems. Mexico has recently approved the use of 5.8 GHz.

The permanent solution for interoperability is being addressed through the cooperation of multiple standards development organizations. Radio frequency link standards that cover the full range of specifications required for interoperability, are expected to be developed by June 1998.

In order for the standards development organizations to productively proceed with their work on DSRC standards, it is necessary to develop formal guiding principles that all three nations can agree upon for the purposes of promoting harmony in trade and transportation. To carry out the provisions of these guiding principles, the committee wishes to form a *NAFTA DSRC Standards Harmonization Task Force* under the auspices of Working Group #4. The Task Force will represent the interests of governments, industry, and users in North America in the development of North American DSRC standards.

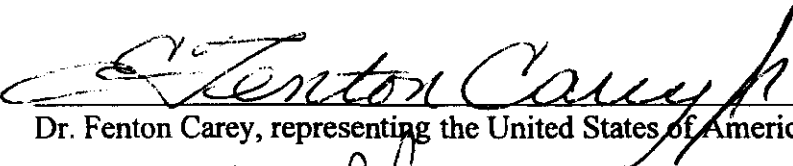
GUIDING PRINCIPLES

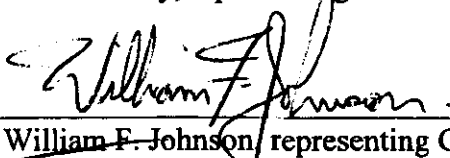
1. The adoption of DSRC standards that ensure interoperability between equipment from different manufacturers, between diverse ITS applications, and between similar applications of different jurisdictions is essential to achieve a rapid, efficient transportation system in North America.
2. The same approved operating radio frequency band in all three countries is essential to an interoperable system throughout North America. Current work on a standard covering North American use of the 902-928 MHz band for the DSRC capability should be completed first, and then a longer term study of the possibility of a transition to the 5.8 GHz band or other frequencies should be developed.

3. An evaluation of previous and current studies will be conducted by the Task Force to determine the best method of frequency harmonization and its impact on other standards needs.
4. The current efforts of standards development organizations are interrelated and complementary, and should successfully contribute to an interoperable, upgradable, multi-application set of DSRC standards that will meet North America's needs.
5. The set of DSRC standards must ensure upgradability from the simplest DSRC device to the multi-application device. The enhanced device would interface with on-vehicle peripherals and act as a two-way communication device for the vehicle and the driver. The set of DSRC standards must permit on-vehicle DSRC devices with different levels of sophistication to run simultaneously and must ensure that all roadside equipment is capable of recognizing and communicating with these on-vehicle devices.
6. The set of DSRC standards must allow, but not require, backwards compatibility with existing systems and compatibility with other draft standards. The set of standards must permit the manufacturers to easily develop products that minimize interference with existing deployed systems, and vice versa.
7. Initiatives need to be identified which could accelerate the demand for DSRC standard products in North America, and thus help ensure the use of the set of standards.

The Committee intends that these guiding principles be effective upon signature.

Signed in Washington, DC, on this 16th day of January, 1998, in triplicate, in English, Spanish, and French, by the co-chairs of Working Group #4.


Dr. Fenton Carey, representing the United States of America


Dr. William F. Johnson, representing Canada


Lic. Francisco X. Cota González, representing the United Mexican States